BP Cherry Point Refinery
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U.S. EPA REGION 10
OFFICE OF COMPLIANCE AND ENFORCEMENT

January 11, 2013

Mr. John Keenan
U.S. Environmental Protection Agency
1200 Sixth Avenue
Suite 900, OCE-127
Seattle, WA 98101

RE: BP Cherry Point Refinery CAA Section 114 Information Request

Dear Mr. Keenan:

On September 14, 2012 BP West Coast Products LLC ("BP") submitted the first installment in BP's response to EPA Region 10's June 7, 2012 information request focused on the flares at the Cherry Point Refinery (hereafter referred to as "114 Request"). This letter and the associated enclosures comprise the second and final installment in BP's response addressing Questions 1 through 6, 9 and 14 of the 114 Request.

Enclosed are two compact discs ("CDs") that contain spreadsheets and documents referenced in the narrative responses provided below. Each document on the CD carries a numerical reference that is identified on the enclosed index. Please note that where one document is relevant to more than one question it will be referenced multiple times; however, only a single copy of the document has been provided.

BP claims confidential business information ("CBI") status for certain information in this response. BP incorporates by reference the CBI representations contained in our September 14, 2012 letter to you. The materials associated with this response that are identified as CBI are included on the CD labeled "Confidential Business Information."

All answers and document searches are believed to be complete through June 13, 2012, the date of receipt of the 114 Request. Questions regarding the Cherry Point Refinery flares are construed to refer to the two flares currently in operation at the refinery. BP is currently installing a third non-assist flare to support a new hydrogen plant, but it has not commenced operation as of the date of this letter, and is therefore not included in the responses to the 114 Request.

In the responses below, each question from the 114 Request is reproduced verbatim and presented in italics. BP's responses immediately follow each question.

Responses

1. *For each day beginning on January 1, 2005, until the date of your receipt of this request, list the periods of time (date, start time, and end time) that Waste Gas, Purge Gas, and/or Supplemental Gas was routed to each flare at the Facility (i.e., "venting periods"). This request and all requests below seek information regarding all facility devices meeting the definition of flare, including the emission points designated as the low-pressure flare and the high-pressure flare.*

Response: The BP Cherry Point Refinery operates two flares, the High Pressure Flare (HP Flare) and the Low Pressure Flare (LP Flare). Neither of these flares combusts supplemental gas as that term is defined in Enclosure B of the 114 Request. Purge gas is continuously sent to the LP and HP Flares. Natural gas is used for purge gas. Because purge gas is included in the Enclosure B definition of "vent gas," the flares are deemed continuously venting except when a flare is shut down for a turnaround maintenance period. Any waste gas flow during a flare shut down period is diverted to the active flare.

The turnaround maintenance periods listed in Table 1 start when the flare was blinded and end when the blind was removed. The dates and times listed below in Table 1 are based on information retrieved from the turnaround logs.

Table 1

LP Flare Shutdown	LP Flare Start Up	HP Flare Shutdown	HP Flare Start Up
May 3, 2005 1815	May 14, 2005 1215	October 11, 2006 0400	October 11, 2006 1400
April 25, 2009 0800	May 16, 2009 1700	May 16, 2009 2300	May 25, 2009 0100
April 21, 2011 0300	April 29, 2011 0800	March 19, 2012 0900	April 7, 2012 0400
March 21, 2012 0600	May 1, 2012 1300		

Both of the Cherry Point flares were receiving vent gas at all times between January 1, 2005 and June 13, 2012, except for those times listed in Table 1.

2. *For each venting period listed in response to paragraph 1 above, provide the average heating value, in British thermal unit per standard cubic feet (Btu/scf), of the stream that was vented to each facility flare. The averaging time shall not be greater than one hour. If the heating value is not measured, you shall use the best means available to estimate it. Provide a narrative explanation and example calculations describing how you arrived at your response.*

Response: The Cherry Point Refinery does not currently measure the net heating value (NHV) of the "vent gas" routed to each flare. Vent gas is a mixture of refinery waste gas and purge gas. The two streams merge downstream of the flare flow meter and waste gas sampling location. To estimate the "vent gas" NHV, the facility separately calculates the average NHV from the waste gas and purge gas streams entering the flare tip, and then calculates the flow proportioned NHV for the combined streams.

The refinery measures the NHV of the waste gas stream through weekly grab samples. More frequent samples are taken during turnaround periods. The waste gas sample is analyzed using gas chromatography and the mole percent of each constituent is determined. The NHV of the waste gas is calculated using the speciation data. The constituents that are typically measured include:

Hydrogen	**t-2-Butene**
Carbon dioxide	**1-Butene**
Hydrogen sulfide	**Isobutene**
Oxygen	**c-2-Butene**
Nitrogen	**Neopentane**
Carbon monoxide	**Cyclopentane**
Methane	**Isopentane**
Ethane	**Methylacetylene**
Ethylene	**n-Pentane**
Propane	**1,3-Butadiene**
Cyclopropane	**3-Methyl-1-Butene**
Propylene	**t-2-Pentene**
Acetylene	**2-Methyl-2-Butene**
Isobutane	**1-Pentene**
Propadiene	**2-Methyl-1-Butene**
n-Butane	**c-2-Pentene**
Cyclobutane	**Hexanes Plus**

For hours in which waste gas samples were taken, the enclosed Excel files list the waste gas NHV measured during that hour. For hours without waste gas samples, the Excel files list the average NHV derived from all waste gas samples taken from that flare during the calendar year. The same methodology is used for routine annual emissions reporting. On rare occasions, a sampling error results in the leakage of ambient air into a waste gas grab sample. These samples are easily recognized by the presence in the sample of high nitrogen or oxygen concentrations, and the values are not included in the data.

The purge gas NHV is from EPA AP-42, which cites a natural gas NHV value of 1020 Btu/scf.

The volumetric flow rates of the waste gas and the purge gas streams routed to each flare are measured by flow meters. Waste gas flows to refinery flares fluctuate over a broad range, depending on upstream operating conditions. For some venting periods, flows exceed the upper bound range of the flow meter. Prior to 2007, flow meter values typically were used to represent the flow at all flow rates. Since 2007, process engineers have been able to calculate an estimated waste gas flow rate and NHV for some events when the flow rates exceed the upper bound range of the flow meter, based on information collected on upstream operating conditions. Where available these data are reflected in the calculations.

Sample Flow Weighted Vent Gas Net Heating Value (BTU/scf) Calculation:

$$\text{Vent Gas NHV} = (Q_{\text{Waste Gas}} * \text{NHV}_{\text{Waste Gas}} + Q_{\text{Purge Gas}} * \text{NHV}_{\text{Purge Gas}}) / (Q_{\text{Waste Gas}} + Q_{\text{Purge Gas}})$$

where: $Q_{\text{Waste Gas}}$ is Waste Gas Flow (MSCF)
$Q_{\text{Purge Gas}}$ is Purge Gas Flow (MSCF)
$\text{NHV}_{\text{Waste Gas}}$ is Net Heating Value for Waste Gas
$\text{NHV}_{\text{Purge Gas}}$ is Net Heating Value for Purge Gas

The estimated vent gas NHV for each flare for each hour between January 1, 2005 and June 13, 2012, except for those periods listed in Table 1, is presented in the enclosed Excel files.

3. *For each venting period listed in response to paragraph 1 above, provide the average mass flow rate of the Vent Gas, in lb/hr, that was vented to each facility flare. The averaging time shall be no more than one hour. If the mass flow rate is not measured, you shall use the best means available to estimate it. Provide a narrative explanation and example calculations describing how you arrived at your response.*

Response: Mass flow rates to the Cherry Point flares are the product of volumetric flow rates and the specific gravity of the vent gas. The data used to estimate volumetric flow rates are described in the response to Question 2. The flow-proportioned vent gas specific gravity is a combination of the waste gas specific gravity, calculated using the waste gas sample data for each flare, and the purge gas specific gravity, calculated as the calendar year annual average natural gas specific gravity received from the natural gas supplier. For hours without waste gas sample data, the waste gas specific gravity is the calendar year average of the specific gravity measurements recorded for waste gas samples taken during that calendar year.

Vent Gas Mass Flow Rate= $((SPG_{Vent\ Gas}*28.964)/379.482)*(Q_{vent\ Gas}*1000)$

where: $SPG_{Vent\ Gas}$ is Vent Gas Specific Gravity
$Q_{vent\ Gas}$ is Vent Gas Flow (MSCF)
28.964 is Molecular Weight of Air
379.482 is the constant for converting a gas from SCF to lb-moles at 60°F.

The calculated vent gas mass flow rate in lb/hr for each flare for each hour between January 1, 2005 and June 13, 2012, except for those periods listed in Table 1, is presented in the enclosed Excel files.

4. *For each venting period listed in response to paragraph 1 above, provide the average rate at which steam and/or air was being added to each facility flare, in lb/hr for steam and/or scf/hr for air, at all locations on the flare (i.e., the sum of seal, upper, lower, winterizing, etc.) during each venting period. The averaging time shall not be greater than one hour. If the steam and/or air flow is not measured, you shall use the best means available to estimate it. Provide a narrative explanation and example calculations, if appropriate, describing how you arrived at your response.*

Response: The LP and HP flares are steam assisted and not air assisted. The steam addition flow rates to each flare are measured using volumetric flow meters. Steam addition to all locations on each flare is routed through a single flow meter. The response to Question 8 (submitted by letter of September 14, 2012) has a description of the steam injection system (center, ring, and secondary ring locations in the flare).

The Cherry Point Refinery uses orifice plates and differential pressure transmitters to measure steam flow to the flares. These meters are reasonably accurate at flow rates between the maximum flow and the bottom 25 percent of their range. Below 25 percent of the range of the meter, errors in the measurement methodology increase substantially as the flow approaches zero.

The maximum range of the Cherry Point steam flow meters are 82,000 lb./hour for the LP flare, and 46,000 lb./hour for the HP flare. In the enclosed Excel files, data from the steam flow meters is presented for flow rates that exceed the 25th percentile of the range of each flare -- 20,500 lb./hour on the LP flare and 11,500 lb./hour for the HP flare.

For steam flow rates below these values, BP used an alternate method to estimate the steam flow rates to each flare. This alternate method estimates the steam flow through each of the three control valves on the steam injection system, and sums the total. The flow through each valve is estimated as a function of the valve opening positions on the three valves and process conditions upstream of the control valves.

Notably, this alternate method has the potential to overstate the steam flow rate under certain operating conditions. Differential pressure across the valve pushes steam through the resistance of the valve. The higher the differential pressure, the higher the steam flow rate. To be conservative Cherry Point assumes atmospheric pressure on the downstream side of each valve. In reality the downstream pressure likely exceeds atmospheric pressure because of frictional loss in the piping downstream of the valve. By ignoring frictional loss downstream of the valve the differential pressure is overstated, which results in an overstated steam flow rate. This conservative approach provides a more accurate estimate of the actual steam flow rates under low flow conditions than the steam flow meters would provide.

The enclosed Excel files present the steam mass flow data in lb/hr for each flare for each hour between January 1, 2005 and June 13, 2012, except for those periods listed in Table 1 when the flares were not operating. For steam flow data that were recorded as negative values, a zero was substituted.

5. *For each venting period listed in response to paragraph 1 above, provide the average steam-to-Vent Gas or air-to-Vent Gas ratio (lb steam/lb vent gas or scf of air/lb of vent gas) during any release to each facility flare. The averaging time shall be no more than one hour. Provide a narrative explanation and example calculations, if appropriate, describing how you arrived at your response.*

Response: The steam to vent gas ratio for each flare for each hour between January 1, 2005 and June 13, 2012, except for those periods listed in Table 1, is presented in the attached Excel files. Each value reported is the quotient of the steam mass flow rate for that hour (measured as described in the response to Question 4) divided by the vent gas mass flow rate for the same hour (measured as described in the response to Question 3). If there is no waste gas or steam volumetric flow for a given hour, the ratio is set to 0.

For EPA's convenience the following table shows the distribution of hourly steam to vent gas ratio data for each flare for each year between 2005 and June 13, 2012. For some years the percentage values do not add up to 100 because of rounding errors.

Steam to Vent Gas Ratio Distribution

		Waste Gas = 0	Steam Rate = 0	STVG Ratio 0-3	STVG Ratio 3-6	STVG Ratio 6-9	STVG Ratio 9-12	STVG Ratio >12
2005	LP Flare	0%	58%	40%	1%	0%	0%	0%
2005	HP Flare	5%	1%	44%	35%	9%	3%	4%
2006	LP Flare	27%	54%	16%	3%	0%	0%	0%
2006	HP Flare	5%	2%	30%	33%	20%	7%	3%
2007	LP Flare	49%	36%	14%	0%	0%	0%	0%
2007	HP Flare	16%	14%	35%	19%	8%	2%	5%
2008	LP Flare	26%	62%	12%	1%	0%	0%	0%
2008	HP Flare	0%	8%	50%	23%	9%	2%	6%
2009	LP Flare	2%	73%	23%	0%	0%	0%	0%
2009	HP Flare	0%	12%	54%	10%	17%	1%	7%[1]
2010	LP Flare	4%	78%	16%	1%	0%	0%	0%
2010	HP Flare	67%	11%	16%	4%	1%	0%	0%
2011	LP Flare	30%	41%	29%	0%	0%	0%	0%
2011	HP Flare	26%	40%	29%	3%[2]	1%	0%	0%
2012	LP Flare	45%	13%	38%	4%[3]	0%	0%	0%
2012	HP Flare	0%	37%	62%	0%	0%	0%	0%

6. *Provide a one-hour average of the concentration of each constituent in the Vent Gas during venting periods for the dates beginning one month prior to your receipt of this request, until the date of receipt of your request.*

Response: This request solicits vent gas data for the period May 14, 2012 to June 13, 2012 ("the Analysis Period"). The refinery does not currently measure or sample vent gas or waste gas constituent concentrations on an hourly basis, and is not required to do so. The response to Question 2 describes the waste gas sampling procedures that BP follows.
During the Analysis Period the refinery was in the process of starting up after a complete refinery shut down. During this period waste gas sampling was more frequent than during

[1] BP performed a major turnaround on both flares in 2009, with maintenance work on valves, flare tips and other equipment. The repairs completed during the 2009 turnaround enabled the tighter control over steam injection rates achieved since 2009.

[2] 78% of the 2011 hours in which the HP flare exceeded an STVG ratio of 3 to 1 occurred during a spring turnaround.

[3] The Cherry Point crude unit sustained a fire on February 17, 2012 that forced BP to gradually shut down the refinery. All of the 2012 hours in which the LP flare STVG ratio exceeded 3 to 1 occurred during a seven day period in which the refinery was shutting down process units following the fire.

routine operations, but samples showed greater variability in constituent concentrations than during routine operations.

During the Analysis Period the refinery collected 16 grab samples of waste gas from the HP Flare and 28 grab samples of waste gas from the LP Flare. Each sample was analyzed using the chromatography methods described in the answer to Question 2. For hours without waste gas samples, waste gas composition is estimated as the arithmetic average of all waste gas constituent concentrations recorded for that flare during the Analysis Period. BP used the Analysis Period average constituent composition rather than the calendar year average composition (as described in the answer to Question 2) because operating conditions during the Analysis Period may have differed from routine operating conditions, and there were more samples for that interval than during routine operating conditions.

Purge gas at Cherry Point is natural gas, comprised of 95 percent methane and 5 percent ethane. The purge and waste gas compositions were flow proportioned to derive the vent gas composition for each hour, as described in the response to Question 2.

The enclosed Excel files present the vent gas constituent concentrations for the LP and HP flares for each hour of the Analysis Period, except for those periods listed in Table 1.

9. *Provide copies of any and all documents in your possession, custody, or control that prescribe or recommend the amount of steam or air to be added to each facility flare. Provide a copy of the entire document if, within the document, it states the maximum steam or air rate, minimum steam or air rate, steam or air addition rate associated with a vent scenario, general steam-to-vent gas or air-to-organic gas/vent gas ratio, or any other reference to steam addition.*

Response: BP is producing 22 documents in response to this question. They include several drafts of documents that were never finalized or distributed to Cherry Point operations staff. Draft documents do not reflect BP policies or procedures, nor are they probative of policies or practices followed at the Cherry Point Refinery. We are nevertheless producing draft documents that fall within the subject matter scope of Question 9 because EPA requested production of drafts.

14. *Provide a list of each occasion when a new line or larger line was tied in to a flare gas header since January 1, 1980, that includes the following:*
    a. *Identify the header and the flares that are fed by the header;*
    b. *State the maximum and average flows of gas added to the header in standard cubic feet per minute (scfm);*
    c. *State whether the gas supplied by the new or larger line contained or contains any sulfur and provide the expected average and maximum concentrations of hydrogen sulfide (H2S), carbonyl sulfide (COS) and carbon disulfide (CS,) in the gas;*
    d. *State the expected average VOC content of the gas supplied by the new or larger line;*
    e. *State the date that the new or larger line was tied in to the flare header.*

Response: By letter of November 15, 2012 from Deborah Hilsman to Matt Cohen, EPA limited the temporal scope of this question to the period from August 29, 2001 to June 13, 2012

(the date of receipt of the 114 Request). The following tables provide the requested information for the LP and HP Flares.

LP Flare Header Connections

Lateral #	Tie-In #	Size (in)	Max Flare Load (scfm)	Avg Flare Load (scfm)	H_2S Concentration Average; Maximum (ppmw)	COS Concentration Average[1] (ppmw)	CS_2 Concentration Average[1] (ppmw)	VOC Mole Fraction	Date
SRU	LP-1	1 1/2"	-	-	NA	NA	NA	-	May-09
SRU	LP-2	8"	16,437		0	NA	NA	0.00	May-09
HC	LP-3	20"	3,172		0	NA	NA	0.60	May-09
HC	LP-4	20"	-	-	NA	NA	NA	NA	May-09
HC	LP-5	16"	17,972		16,000; 33,000	NA	NA	0.61	May-09
#1 Reformer	LP-6	4"	935	643	0	NA	NA	0.66	May-09
#1 Reformer	LP-7	1"	-	-	-	NA	NA	-	May-09
ISOM	LP-8	12"	57,102		NA	NA	NA	0.90	April 2005; May 2009
37-Butane Loading and Propane Storage	LP-12	4"	716.00	304.00	NA	NA	NA	<0.01	2008
29-LP Flare	LP-19		-	-	No new load	No new load	No new load	No new load	2012
17 Sulfur, Sour Water, DEA	LP-20		-	-	No new load	No new load	No new load	No new load	2012

[1] These chemicals are not in the Heat & Material Balance Tables for these streams

HP Flare Header Connections

Lateral #	Tie-In #	Size (in)	Max Flare Load (scfm)	Avg Flare Load (scfm)	H_2S Concentration Average; Maximum (ppmw)	COS Concentration Average[1] (ppmw)	CS_2 Concentration Average[1] (ppmw)	VOC Mole Fraction	Date
	HP-1	1.5"	-	-	NA	NA	NA	-	May-09
#1 Reformer	HP-2	18"	29,756	0	0	NA	NA	0.72	Mar-11
HC	HP-3	8"	15,443	0	0	NA	NA	0.07	Mar-11
#1 Reformer	HP-4	16"	90,320	0	0	NA	NA	0.05	Mar-11
#2 Diesel	HP-5	12"	14,548	0	0	NA	NA		September 2007; March 2011
Boilers	HP-6	6"	33,703	16,852	5; 230	12	0	0.18	Mar-09
Boilers	HP-7	6"	-	-	5; 230	12	0	-	Mar-09
Boilers	HP-8	6"	2,694	0	5; 230	12	0	0.00	Mar-09
Boilers	HP-9	1"	10,592	5,296	5; 230	12	0	0.18	Mar-09
#3 DHDS	HP-10		-	-	Process unit not yet connected	Process unit not yet connected	Process unit not yet connected	Process unit not yet connected	2011
29-HP Flare	HP-11		-	-	No new load	No new load	No new load	No new load	2012

[1] These chemicals are not in the Heat & Material Balance Tables for these streams

As previously stated, this submittal completes BP's response to the 114 Request. Please contact me at 360 371-1500 if you have any questions after reviewing this material.

Sincerely,

Jeff Chalfant
Environmental Superintendent
BP Cherry Point Refinery
BP West Coast Products LLc

Enclosures:
CBI and non-CBI CDs

cc: Robert Genovese, BP
Stacey McDaniel, BP Cherry Point Refinery
Robert Wallace, BP Cherry Point Refinery
Asik Khajetoorians, BP
Matt Cohen, Stoel Rives LLP
Mark Nuyens, BP Cherry Point Refinery

73224145.3 0055097-00009

Filename	Response	Production Name	Production Start Bates	Production End Bates
BP_CP_Flare 114_2005 Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000556	BP-CHP00000556
BP_CP_Flare 114_2006 Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000557	BP-CHP00000557
BP_CP_Flare 114_2007 Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000558	BP-CHP00000558
BP_CP_Flare 114_2008 Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000559	BP-CHP00000559
BP_CP_Flare 114_2009 Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000560	BP-CHP00000560
BP_CP_Flare 114_2010 Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000561	BP-CHP00000561
BP_CP_Flare 114_2011_rev Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000562	BP-CHP00000562
BP_CP_Flare 114_2012_rev Final Format.xls	Response to Questions 2, 3, 4, 5	BP Cherry Point Phase 02	BP-CHP00000563	BP-CHP00000563
Response 6 Final Format.xlsx	Response to Question 6	BP Cherry Point Phase 02	BP-CHP00000564	BP-CHP00000564
CHP - 2011 SIP-0 Status Report 08.01.11.xls	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000565	BP-CHP00000565
CHP - 2011 SIP-0 Status Report 09.06.11.xls	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000566	BP-CHP00000566
CHP - 2011 SIP-0 Status Report 11.01.11.xls	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000567	BP-CHP00000567
3200 Flare Detailed Process LP Flare.pdf	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000568	BP-CHP00000580
Flare SIP Item Closure Plan: Please provide feedback.htm	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000581	BP-CHP00000582
MoC Notification Flare Steam to Gas Ratio SIP ZZ_089.htm	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000583	BP-CHP00000583
CHP - 2011 SIP-0 Status Report 10.1.11.xls	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000584	BP-CHP00000584
2011-11-28 BP Flare Manual_Draft.pdf	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000585	BP-CHP00000716
3300 FLARE DETAILED PROCESS HP FLARE - August 2011 version.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000717	BP-CHP00000729
3300 FLARE DETAILED PROCESS HP FLARE - April 2012 version.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000730	BP-CHP00000742
3200 FLARE DETAILED PROCESS LP FLARE.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000743	BP-CHP00000755
3200 FLARE DETAILED PROCESS LP FLARE - April 2012 version.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000756	BP-CHP00000768
3100 FLARES GENERAL PROCESS DESCRIPTION.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000769	BP-CHP00000770
3300 FLARE DETAILED PROCESS HP FLARE.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000771	BP-CHP00000783
3200 FLARE DETAILED PROCESS LP FLARE.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000784	BP-CHP00000796
3100 FLARES GENERAL PROCESS DESCRIPTION.doc	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000797	BP-CHP00000798
2011 ZZ_089 Activity Summary.pdf	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000799	BP-CHP00000800
Draft 2012 USR SIPo.pdf	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00000801	BP-CHP00001035
Draft 2012 USR SIPo.pdf	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00001036	BP-CHP00001038
BP Flare Manual_Draft (11.11.2011).docx	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00001039	BP-CHP00001129
Appendix B - Flare Compliance Assessment Protocol.docx	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00001130	BP-CHP00001158
BP Flare Manual_Draft (11.21.2011).docx	Response to Question 9	BP Cherry Point Phase 02	BP-CHP00001159	BP-CHP00001252